Letter by Carapetis Regarding Article, "Is Primary Prevention of Rheumatic Fever the Missing Link in the Control of Rheumatic Heart Disease in Africa?"

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Circulation. 2010;121:e384
doi: 10.1161/CIR.0b013e3181dbdde0
Circulation is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231

Print ISSN: 0009-7322. Online ISSN: 1524-4539

Correspondence

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To the Editor:

Karthikeyan and Mayosi make a compelling case for increasing the focus on sore throat treatment in Africa with the aim of preventing rheumatic fever.[1] However, in citing one of my articles in relation to their statement "Several arguments have been made against adopting primary antibiotic prophylaxis for the prevention of RF and RHD as a public health intervention in the community," I believe they have misrepresented my position. I have never argued against the importance of treating streptococcal sore throat in primary care. On the contrary, I have repeatedly reinforced the importance of this strategy in review articles and book chapters. However, such an approach, in itself, is not proven to reduce the incidence of rheumatic fever, and I have also argued that systematic school- or community-based programs of swabbing sore throats and administering antibiotics to those with positive cultures for group A streptococci are not cost effective, particularly for developing countries. A recent meta-analysis of studies of such interventions included only one randomized controlled trial alongside two observational and three before-and-after studies.[2] I believe that the data from the latter five studies were not of sufficient quality to warrant their inclusion in a meta-analysis. The randomized controlled trial included almost 87 000 person-years of observation, and the authors did not observe a significant reduction in rheumatic fever incidence.

In my opinion, Karthikeyan and Mayosi are also incorrect in saying that the Cuban and Costa Rican experiences present "incontrovertible evidence that primary prevention really works." These were ecological studies, which do not allow attribution of causation to a particular intervention. In Costa Rica, the reduction of rheumatic fever incidence occurred over many years and coincided with many other factors (eg, the introduction of a national health care plan) that could have contributed to a reduction in rheumatic fever incidence.[3] In Cuba, the reduction in rheumatic fever incidence coincided with the introduction of a comprehensive control program that included primary prophylaxis and also "secondary prevention of ARF/RHD, training of health personnel, healthcare education via dissemination of information, community involvement and epidemiological surveillance."[4] These reports support the use of a sore throat treatment strategy as an important component of a multifaceted strategy that includes primary prophylaxis as one important component.

I support the view of Karthikeyan and Mayosi that primary prophylaxis in developing countries should be based in primary health care and cannot rely on the availability of microbiological diagnosis. The available evidence suggests that the most successful approaches include this as one element of a comprehensive package such as was instituted in Cuba and previously in the French Caribbean,[5] the most important benefit of which may be increased awareness of rheumatic fever, its prevention, and its management by health staff and in the general population. This is the strategy we should be advocating, and we should avoid making specific claims about the likely effectiveness at the population level of primary prophylaxis alone, when this is not supported by the available evidence.

Disclosures

None.

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(*Circulation*. 2010;121:e384.)

***Circulation* is available at http://circ.ahajournals.org** **DOI: 10.1161/CIR.0b013e3181dbdde0**